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ABSTRACT

This report summarizes the papers and discussions of a symposium held in Woodstock, Vermont, June 17-20, 1980. The symposium was convened to allow 50 representatives from the worlds of academia, business, the foundations, and government to discuss two major topics. These topics are the relation between education and those dimensions of experience that give value, meaning, and purpose to human life and ways of knowing and thinking about the world that influence the relationship between education and values. A major concern of many symposium participants was that modern society, and, particularly, education, has become dominated by the view that we can know only that which we can count, measure, and weigh. As a consequence of this view, current conceptions of knowledge often give rise to views of the world that provide little support for human values and for an education in which persons and the values of persons remain central. Seven papers addressed these and related issues. Titles are, "Insight"; "Mind and the Meaning of Mystery of Personal Experience"; "Language, Consciousness, and the Recovery of Human Meaning"; "Beyond the Modern Western Mind Set: Toward a Living Universe"; "The Living Image"; "Cultural Vision and the Human Future"; and "Education." Among those themes which recurred throughout the papers were the proliferation of courses in elementary and secondary schools on moral development and values clarification, the upswing in the number of colleges offering courses on ethics, the inability of unquestioned presuppositions about what knowledge is true and/or important to explain reality, the need to nourish the imagining capacity of the mind, realization that modern Western thinking is beset with limitations regarding assumptions about knowledge, and the need to go beyond the premises of a world constructed according to the premises of scientific naturalism. A directory of symposium participants concludes the report. (DB)

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Knowledge, Education, and Human Values:

Toward the Recovery of Wholeness

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Preface

Each year the Kettering Foundation, through its Exploratory Research Program, convenes a small group of persons for the purpose of examining fundamental issues and their implications for society. These meetings are designed to draw out the concrete in abstract ideas—to work from theory toward eventual action that can benefit society. Key to this process is what might be described as a collaborative spirit. That is, we seek to encourage interaction among persons with different backgrounds and talents, from different disciplines and fields of interest.

Douglas Sloan, in a paper which served as backdrop for this year's symposium, argues eloquently that the integrative approach is the basis for most understanding and insight. "Only by maintaining the tension between polarities—between freedom and discipline, between individuals and society, between rationality and instinct," says Sloan, can we hope to address "central human problems" with any degree of success.

Accepting diversity and balancing polarities is a tricky business. The important question is: What are the forces that work for integration in human enterprise as opposed to those that lead to disintegration? It seems to me that the key to wholeness lies in our fundamental values—those qualities of human temperament which are sustained by a sense of wonder and affirmation toward life's mysteries.

The following report summarizes the papers and discussions of the symposium on "Knowledge, Education, and Human Values: Toward the Recovery of Wholeness," held June 17-20, 1980, in Woodstock, Vermont. The complete text of the Woodstock talks is to be published in a special issue of the *Teachers College Record*.

We hope you will share your reactions and suggestions for future activities of this nature by writing to our office.

Robert F. Lehman
Director, Exploratory Research

Knowledge, Education, and Human Values: Toward the Recovery of Wholeness

In June, 1980, some fifty prominent representatives from the worlds of academia, business, the foundations, and government met to discuss the topic, "Knowledge, Education, and Human Values: Toward the Recovery of Wholeness." More than one fifth of the participants in the symposium had extensive backgrounds in the sciences, including neurophysiology, medicine, quantum physics, cell biology, and computer science. Among the other participants were philosophers, sociologists and anthropologists, psychologists, educators, businessmen, foundation executives, and government officials.

They came together because of two fundamental concerns. The first concern was for the relation between education in its broadest sense and those dimensions of experience that give value, meaning, and purpose to human life. This concern was, of course, not peculiar to the symposium but one that is currently drawing widespread attention. Programs for moral education and citizenship training, for example, proliferate in schools and in departments of education. General education, ignored for some years, is once more a burning issue as leaders in higher education seek ways of reconciling the sciences and humanities and of introducing questions of value into the curriculum. Moreover, consideration is being given as seldom before to the college-wide teaching of ethics; increasing numbers of institutes and research programs are devoting themselves to the teaching of ethics in the undergraduate curriculum and in professional education. The pressing problems of modern life that threaten the future of the earth have turned many to look to education for help, calling for broad biological, ecological, and agricultural education—for peace, world order, and disarmament education. The symposium, therefore, represented an effort to address what are widely agreed to be among the most important and crucial issues facing modern society.

The second impulse for the symposium stemmed from the conviction that no genuine and enduring relationship can be established between education and values apart from our underlying conceptions of knowledge and ways of knowing. There has arisen in the modern world an increasingly dominant view that we can know only that which we can count, measure, and weigh. In this view—and it often dominates modern education in the schools and in the media—feeling, imagination, the will, intuitive insight are regarded as having little or nothing to do with knowledge and are frequently disparaged as sources of irrationality. In this view of knowledge and knowing there is no place for purpose, mind, meaning, and values as constituent of reality. In consequence, our conceptions of knowledge often give rise to views of the world that provide little support for human values and for an education in which persons and the values of persons remain central. Thus a major impetus behind the symposium was the recognition that to examine our understanding of knowing and knowledge is to consider education and human values at their most fundamental level. The main speakers at the symposium—representing natural science, philosophy, philology, sociology and anthropology, religion, and education—were persons whose life-work has been to show that there are ways of knowing and thinking about the world that

do, indeed, make meaning, purpose, and values central, and that require a radical new look at education in all its dimensions.

Insight

A fundamental distinction exists, said David Bohm, professor of theoretical physics at Birkbeck College, University of London, between the new knowledge that comes from deep, energetic Insight, and the kind of knowledge that comes from merely rearranging what is already given. All genuinely new knowledge comes by means of passionate, energy-filled Insight that penetrates and pierces through our ordinary ways of thinking. The function of Insight, Bohm said, is twofold: to remove blocks in our customary and fixed conceptions of things and to gain new perceptions. When we fail to attend to the central role of Insight in knowing, we become trapped in the already given. We then take knowledge as an "absolute necessity"—as something objective, value-free, unchanging for all time—and find ourselves as a result hemmed in by all kinds of unquestioned presuppositions that cut us off from the newness and wholeness of reality. Presuppositions that act as blinders and specialization that becomes compartmentalization and fragmentation are the twin results of knowledge as absolute necessity, knowledge without Insight. Knowledge itself then becomes, said Bohm, a form of "endarkenment." Our personal lives and our society, he said, are filled with absolute necessities that serve as fixed priorities, traps, barriers, and illusions.

Insight, Bohm said, pointing to the examples of Newton and Einstein, announces itself in mental images. Newton's conception of gravity and Einstein's notion of the constant speed of light first came to them as perceptions, as images, not as hypotheses or conclusions drawn from logical deduction. To be sure, the full meaning and implications of the initial images had to be worked out through hypotheses, formal logic, and the ways of our ordinary thinking. But, Bohm cautioned, formal logic itself is secondary to Insight and is never the source of new knowledge. Formal logic and discursive reasoning not in the service of Insight simply lock us all the tighter into our given presuppositions and rigid mental compartments, and stand as barriers to further perception. It is essential, therefore, Bohm urged, that education encourage always a "relentless questioning" of all our given presuppositions, assumptions, and taken-for-granted knowledge—a relentless questioning in the context of Insight which alone can penetrate to a larger whole, a larger truth, than can ever be grasped in a given moment or situation. An education for Insight, he indicated, will nourish the imaging capacity of the mind, will foster relentless questioning, and will value the personal energy, attention, and passion of the knower, without which Insight is impossible. "Knowledge, education, and values," Bohm said, "all constitute an endless field for Insight."

Mind and the Meaning and Mystery of Personal Existence

"Each of us," said Sir John C. Eccles, neurophysiologist and recipient of the Nobel Prize for medicine, "has the ineffable experience of being a person with self-consciousness, central to which is that lifelong unique psyche or soul." The dominant view held by neuro-scientists today, Sir John noted, is that the experience of self-conscious personnood can be fully accounted for as a derivative of brain functioning. Mind and brain, however, are not identical, said Eccles, and it is a mistake to think that the brain does everything and that our conscious experiences are simply a reflection of brain activities. The uniqueness of each psyche cannot be explained, he argued, even by the most subtle genetics, neuroembryology, or developmental psychology.

After a careful consideration and rejec-

tion of those theories that reduce mind to brain, Sir John set forth and defined an alternative theory. This view, which he labeled "dualist-interactionism," holds that the self-conscious mind and the brain are two distinct entities with, in the awake state, intense interaction across the frontier between them. This is not to deny, he said, the marvelous complexity and powers of the brain. He illustrated the brain's incredible potential by contrasting the myriad musical compositions possible on the piano with its mere eighty-eight keys to the virtually infinite pattern-generating capacity of the brain's four million modules (2,500 cells per module). Yet, he argued, the brain remains an instrument of the self. We can, he said, use current metaphors to speak of the brain as our computer—an infinitely complex computer—and our self-conscious mind or self as the programmer. The computer without its programmer has neither responsibility nor purpose. All people behave, he pointed out, as if they have some responsibility for their thoughts and activities (and philosophers who deny this, he noted, seem always to be talking about other people, not about themselves). Moreover, meaning is basic to our self-existence, but meaning is in the mind, the programmer, not in the computer, which can only deliver information. The self's experience of meaning led him to the belief, Sir John concluded, that we are actors in an unimaginable cosmic dream, and that "we should give all we can in order to play our part."

Language, Consciousness, and the Recovery of Human Meaning

One of the most immovable of all modern presuppositions that keep us from Insight, argued Owen Barfield (lawyer, philologist, and philosopher), is the assumption that the qualities of experience, and with them, values, reflect only subjective preferences and states of mind. The tendency of the past four hundred years has been to regard only that which can be measured and counted—quantity—as objective and real, and all else—qualities and values—as purely subjective, and, thus, ultimately nonexistent. "People used to talk about beautiful and ugly, noble and beastly, right and wrong; but that could go on as long as there was confidence that qualities are objectively real. Look closely and you will find there is today," he said, "a widespread presupposition, subconscious for the most part, but raised to the level of consciousness in the philosophy of a value-free science, that there is really no such thing as quality. There is the useful and the useless, the desirable and the undesirable, and that is all."

The disappearance of the qualitative dimensions of reality has been devastating, particularly in education, where "rational" has often come to mean value-free, where the ethical uses of knowledge give way frequently to purely utilitarian considerations, where often even the reality of the students as persons is eclipsed by the stress on quantity.

One crucial way, Barfield suggested, to recover the objective as well as the subjective reality of qualities and values is by attending to the actual meanings and changing meanings of words. This he called the contemplative study of words as distinguished from the usual scholarly analysis of language which focuses not so much on meanings as on the grammar, syntax, and structure of our ordinary use of language. The contemplative study of words will show that "the words I speak have meanings which I did not originate," that words can reveal a larger reality beyond the merely quantitative, that words, in short, are to qualities what numbers are to quantities.

The benefits of such a contemplative approach to language, Barfield maintained, would be several-fold. First, it would make us aware that the twentieth-century way of

thinking is not *the* way, but only one way of understanding the world. Second, it would reveal the symbolic nature of words, that "it is in the very nature of words that they use the material to name the immaterial, the phenomenal to name the noumenal." And this in turn would help to dispel "the almost universal assumption that thinking is a function of the physical brain." It would become possible to see qualities as rooted objectively in that immaterial reality to which words in their deepest meaning can provide access.

Beyond the Modern Western Mind Set: Toward a Living Universe

Both Huston Smith, professor of religion and philosophy at Syracuse University, and Kathleen Raine, British poet, scholar, and philosopher, focused on aspects of what Smith called the "modern Western mind set" in light of the understanding of older, primordial, philosophic and religious traditions. As we have become aware of the limitations of many earlier cultures and their beliefs, noted Smith, it has become tempting to suppose that we ourselves have escaped limitations in our thinking and assumptions about knowledge. That we have not escaped such limitations becomes evident, he argued, when we take a close look at the modern Western mind set. This mind set, Smith said, is one that focuses upon one domain which it takes to be reality: namely, the quantitative, material domain that the method of natural science has brought to view. For the modern Western mind set, all else that does not fit in this view of reality, when it is not denied outright, is called into question, if only by neglect.

With its emphasis on objectivity, prediction, control, and number, modern science has proven extremely powerful in its own domain, but in the process has omitted certain things essential to the human experience. Those things that modern science cannot deal with and has no place for include, according to Smith: 1) normative and intrinsic values—science can deal only with descriptive and instrumental values; 2) purposes—the question of "Why?"; 3) global and existential meanings; and 4) qualities—qualities that involve feeling and awareness. This world view must be transcended, he argued, simply because it has landed us in deep trouble by making it impossible to regard as realities those qualitative aspects of life that are most important. If we are to transcend this view, he said, we must recover the awareness that what we do (our ethics) depends on who we are (our virtues), and these in turn depend on what we see (our theories, theologies, theophanies). At bottom, therefore, the question of purpose, meaning, quality, and value rests on our understanding of knowledge and knowing; it is, at heart, educational.

We need, he said, to break into a view—a seeing—that 1) makes possible a clear sense of direction, purpose, and orientation; 2) sees causation as moving downward, from the higher to the lower, from the whole to the parts, rather than from the bottom up; 3) situates the human being not at the apex but within a larger hierarchy of being and perfection; 4) heals the self-world divide; or 5) renders that divide nonexistent. Such a world, he remarked, would be not only more living; it would also be more interesting.

"If a New Age means anything," said Kathleen Raine, "it means a change of premises, and the consequent recovery of a whole body of knowledge—excluded by materialist science as irrelevant; a knowledge no less exact, no less extensive, structured, and objective than the laws of nature: knowledge of man's inner world, of the *Imagination*." Although, she said, this knowledge is to be found in certain Eastern views to which many today are turning, the West has its own centuries-old traditions which can provide indispensable resources for a revisioning and new understanding of

the universe. Perhaps the most valuable of these Western sources for the modern world, Dr. Raine said, is the Neoplatonic tradition as it has come to expression in Jewish and Christian Platonism, in Swedenborg, Blake, and Coleridge, and in our own time in Yeats, Jung, and Henri Corbin.

Dr. Raine took as her point of departure Blake's criticism of the post-Cartesian scientific view of the universe: that the universe of "matter" or "nature" external to the perceiving mind is "dead" or void of life and therefore without values and qualities. "Life" in Blake's sense, however, is understood not as an attribute of matter (as by behaviorists), but as an attribute of consciousness which, as such, cannot be quantified or reduced to the terms of a quantitative science. By contrast, nature as seen by a naturalistic science lies outside the mind, outside the Imagination, and has an existence which is merely quantitative. As a result, nature has become, said Dr. Raine quoting Blake, "a spiritual desert, a wondrous rocky world of cruel destiny, rocks piled on rocks reaching the stars . . . a building of eternal Death." The problem with a world constructed according to the premises of scientific naturalism is not that many individual scientists lack idealism and moral commitment. On the contrary, she said, many are ethically concerned and committed; she recalled how, when she had been a student of science at Cambridge, her contemporary and friend, J.B. Bronowski, had refused to work in the field of nuclear energy because it was likely to be used for making deadly weapons. The trouble, she pointed out, is that a naturalistic world view itself provides no ground for affirming—or denying—the moral and life commitments of a man like Bronowski.

Within the traditional wisdom exemplified in Blake, Yeats, and Corbin, Dr. Raine argued, is to be found the basis for a radical change of premises which would make possible a radically different experience of the universe as living. In the first place, according to the traditional wisdom, mind, not matter, is the primary ground of reality. Mind does not exist in nature; nature exists in mind. Mind contains the nature it perceives and creates, a nature that is not a lifeless mechanism but a living matrix. In the second place, the traditional wisdom recognizes the laws of the mind as the most real, the most inexorable, the most universal of all things, with concrete implications for all of life, a view almost entirely lost by the modern world. "In the arts and in criticisms of the arts (not to mention behavioral psychology . . .)," Dr. Raine said, "the distinction between the significant and the meaningless and even of the pathological has been lost. Our age can gape at the great works of the past—megalithic circles, the pyramids, the Parthenon, Chartres, the Alhambra, or comparable works of poetry, music, or painting. But with our vast technical skill we ourselves do not possess the knowledge to create such works; for that knowledge was a spiritual knowledge." Finally, the traditional wisdom accords a central role to the imagination, to deep insight, as the bridge between individual consciousness and a world of living meaning.

The Living Image

Peter Abbs, lecturer in art, philosophy, and education at Sussex University in England, addressed directly the place of the imagination in education. Our pressing need in education, he declared, is "to restore the power of the living image, to confer to it a high epistemological status, to put it alongside *concept* as one of the key ways in which we symbolize and then come to know our human world." Images, he said form a first and natural language of the human being, and it is through images, through metaphor, through fantasy that we discover truths about ourselves and our world that we can know by no other means. This is not to be construed, he cautioned, as an attack on reason or a denial of the im-

portance of experimental and deductive reasoning. Reason is vital; we require both images and concepts, metaphors and precision, *mythos* and *logos*. The task, he said, is to restore the balance and to recognize the unique and essential contributions of both sides.

It is through the conscious collaboration with our image-making forces that we can become, said Abbs, agents in our own innermost change and growth. Drawing on examples from published autobiographies, Abbs demonstrated vividly the power of the image, of metaphor and fantasy, to understand more fully our world, "to cognize experiential truths," and to achieve an authentic self-identity. Through the image and fantasy that arise spontaneously from the psyche, he suggested, we are able not only to attain a heightened consciousness of the surrounding world, but also to discover a new and enhanced sense of identity. Through the awareness of the creative energies of the psyche we can come to the awareness of an enduring, authentic self behind the sequence of masks and social role playing demanded by a competitive and materialistic civilization.

This notion of the living image, Abbs concluded, has specific implications for education. First, it suggests that the arts, whose life-blood is image and metaphor, must command a central place in the curriculum. We can no longer afford to regard the arts as mere embellishment, polish, or entertainment. They become rather an avenue to authentic individual identity and cultural health. Second, he said, once the cognitive dimension of the emotional is recognized, we can no longer exclude the instinctive and affective domain from the curriculum and from our pedagogy. Third, the teacher, above all, must embody and image genuine, authentic being. And, finally, he urged, we must reclaim as the core source and standard for all our curriculum and pedagogy the rich language of our best cultural tradition.

Douglas Sloan (right), symposium rapporteur, c chairman.

"It is painfully ironic," said Abbs, "that in the discipline of educational study we have spawned, perhaps more than in any other human study, a barbaric language of jargon and gobbledygook, an iron and cement language which is incapable of grasping the human essence and of making the necessary and subtle discriminations in living experience." The **rich, human,** meaning-laden language of our best cultural and artistic traditions leaves us with no justification in adopting "the degraded machine-language of behavioral psychology and quantitative sociology." If

onfers with Huston Smith (left), symposium

this appears Utopian, Abbs concluded, then "Utopia beckons, as image, as metaphor—and in the metaphor much is to be cognized."

Cultural Vision and the Human Future

Joseph Weizenbaum, professor of computer science at Massachusetts Institute of Technology, said that we have yet to grasp the full seriousness of the critical times in which we live. A fundamental and spreading misconception of the role and place of technology in human life poses, he said, an imminent threat to the human future. In his own field of computer science, Weizenbaum stated, this misunderstanding has attained its most extreme and most dangerous manifestation. Computer science, he said, originally began as a human-centered science with the intent that computers under human control would serve human purposes. What went wrong, he argued, was that attempts to capture some aspects of the human in the machine produced a conception of a machine-like human. It was as though one aspect of the human mind, the computer aspect, were externalized and embodied in a machine which was then taken as the model for the entire human mind, which is then viewed as itself only a computer—and, at that, an inferior computer in comparison with an increasingly sophisticated, silicon-based computer technology. This reduction of the human mind to the machine, Weizenbaum noted, had long been immanent in Western thinking, but the computer gave it a concrete embodiment that to many people has become utterly convincing.

The results of this misconception, Weizenbaum held, have pushed human concerns more and more to the periphery of our social policies and our views of the world. It has, for example, he pointed out, become increasingly axiomatic in the Western university that every aspect of human life and thought is computable, not only in principle but in fact. Those dimensions of the human being and those human problems not amenable to computer solutions are regarded simply as unimportant or nonexistent. There has even been a growing tendency among those involved in the artificial intelligence movement, he said, to speak contemptuously of the human being, to describe the human brain as merely "a meat machine," and to view human intelligence as deserving to be replaced by what is seen as the more effec-

tive, silicon-based intelligence of the computer. At the same time, Weizenbaum said, we entrust increasingly crucial decisions to computers that we understand and control less and less, and whose capacity for error—as recent reports of mistaken nuclear alerts and banking system errors attest—have acquired truly life-threatening proportions. The task before us, Weizenbaum argued, is once again to look for the human meanings in the ways the information-processing capacities of the computer are used. Humans, he said, can care and choose; computers can decide but not choose, and they do not care.

In the discussion that followed, Philip Siekevitz commented that "an even worse example of the same thing comes from biology." "For example," Siekevitz continued, "sociobiology has said that there is a gene for altruism; this is worse because it's based on a total misreading of what the science of biology is about. There is no gene for altruism, but the sociobiologists wish to anthropomorphize in order to reduce the human to what we would call the nucleotides on a DNA string—which have no relation at all to altruism. They wish to go back to the biological, but they misread even it completely. As to what we can do, there is a very strong reaction against this among biologists."

David Bohm suggested that a reason for the growing blind faith in the nonhuman is that man is caught in jealousy and various forms of irrationality. There is, as a consequence, a climate of total despair in which "people no longer believe that man can handle himself rationally and are clutching at straws in turning to artificial intelligence."

"The psychoanalytic response to our situation," said Rollo May, "ought to be, and hopefully, perhaps can be, our own absorption of the degree of despair that is present. The problem is our own denial of the situation. I can feel it in myself," he continued, "for very good reasons. But our chance for survival is nil unless we can face the despair without denial."

"I agree," said Weizenbaum, recalling the earlier statement of Huston Smith, "It's not what we do, but what we are, and what we are is related to what we see. The emphasis should be on the *we* and on the *I*. Everything starts with *you* and *me*. This radiation effect of starting with *me* is the only hope."

As a sociologist, Robert Bellah, professor of sociology and comparative studies at the University of California, Berkeley, sought to examine the concrete social and economic features of American society. In so doing, he took as one of his major aims to explore what pre-modern and non-Western cultures may have to offer Western culture. Acknowledging the great strengths and achievements of America, Bellah said that he was, nevertheless, forced to the conclusion that it is in trouble, that "our society is not working well and all signs indicate it will work less well in the future." The destructive element, he argued, is bound up, in part, with what he called a pervasive and radically "secular, atomistic egalitarianism." This view, he said, starts from the premise that the biological individual is the only human truth, and it ends in a society of self-seeking, self-encapsulated individuals without common standards and communal purpose.

Reporting on a research project on American social mores he is currently directing, Bellah observed that while white, middle-class America is as free and as materially comfortable as any group of people has ever been, there is mounting evidence that the patterns of many daily lives are without meaning, that workplaces are places of boredom for growing numbers of persons, and that few have any sense of purposeful engagement with the larger society. His research group was finding, he said, mounting evidence of the emergence of a private world having great intensity—he noted in this regard the voguish use of such words as "creativity," "excitement," "energy," "zing"—but with no real content and substance. We live increasingly in a

world, he said, in which egalitarianism is conceived as mechanistic uniformity, in which individuals are viewed as interchangeable parts of a vast mechanism, in which we "maximize individual choice beyond what any traditional society has ever done and then deny all standards of choice as being any more than purely private."

A comparative look at other cultures, Bellah suggested, can help us understand ourselves better. He assessed four models for such a comparative approach: 1) the model of modernization—the view that the West sets the standards and that others are to follow. This model highlights the genuine achievements of the West but is vulnerable to all the problems of colonialism, ethnocentrism, and arrogance toward others; 2) the model of cultural relativism—the view that all cultures are equally valid. The result of this model, he said, has been the trivializing of all cultures and the abandonment of any cultural standards; 3) the model of cultural borrowing—the view that we can simply appropriate and adopt the best of other cultures. Such a view, he said, evident in much current enthusiasm for things Eastern, often tends to deny the total social context that determines the meaning and function of specific cultural practices. The only satisfactory model, Bellah argued, is 4) the model of comparative analysis in which the aim is to learn by contrast more about ourselves, and only then to consider what can be adopted from outside. From this perspective, he said, ancient and non-Western cultures suggest that in place of our atomistic individualism we need to consider how we can recover the virtues of hierarchy, of moral ecology, and of communal standards and purposes.

The place to start for renewal, said Bellah, is with the communities in society that have living traditions and for whom change is a real possibility—and to nourish every element of these communities that remains alive. There are two living traditions in America that, according to Bellah, provide resources for recovering a sense of direction and common purpose: the American civic tradition, with its roots in the Greek polis, and the churches and synagogues of America. These, for all their shortcomings, he said, have for more than two centuries nourished movements of social renewal, still rest on premises radically different from atomistic individualism, and harbor the possibility of reshaping and renewing the life that sustains us. If we cannot nurture those vital cultural elements that still exist, Bellah said, it is unlikely that we can create new ones.

If we are to overcome the Nihilism of our age, said Hubert Dreyfus, professor of philosophy at the University of California, Berkeley, we need a total transformation in our way of knowing. But before this is possible, he continued, a preliminary step is required. We must first understand the nature and origins of Nihilism—the radical loss of meaning that afflicts the modern world. By gaining this understanding we can at least better avoid becoming a part of the problem while we seek solutions for it. This loss of meaning is manifested in many ways: nothing has authority for us or demands commitments from us; there are no significant differences between political parties, private individuals, or public issues; there are no shared commitments—people are isolated, the public world loses meaning, everything retreats into private experience; and there are no longer religious commitments calling for sacrifice and a sense of wonder and awe. All is equal; all is indifferent.

Neither materialism nor an overweening faith in technology, said Dreyfus, is the cause of this meaninglessness; rather, they are its consequences and symptoms. The roots of Nihilism, according to Dreyfus, lie in the belief that theory is our fundamental way of knowing reality, and in the twin desires, which arise from an exclusive reliance on theory: to make everything explicit (which he called objectification) and to bracket out from our theory every-

day human experience (which he called decontextualizing). Dreyfus introduced a note of controversy by suggesting that the emphasis on theory began with Plato and Socrates, but it became clear in discussion that disagreement over the proper interpretation of Plato was secondary to Dreyfus' main point that a fundamental transformation of our conception of knowledge is needed.

By regarding theory as our fundamental access to reality, Dreyfus argued, we turn the world into a picture that not only contains extremely limited elements of the whole, but that also stands apart from us and has no integral relationship with us. The world as an objectified, decontextualized, theoretical picture stands outside us and makes no claims on us; we can take it or leave it. The world of reality, however, is too rich and complex ever to be made fully explicit. Our deepest form of knowing, said Dreyfus, is through our participation in the practices, commitments and engagements of our everyday experience. We must, he said, foster "the saving power in little things" that have not yet been made explicit, that are still grounded in the matrix of the whole, and that still grasp us by making a difference in our lives. Above all, he urged, we must reappropriate the meaning in unconditioned commitments to others, commitments that because they make an ultimate difference can focus the implicit significances of our existence and thus serve as inexhaustible sources of meaning. We will then recognize that science can be properly valued as a special form of theoretical knowledge that is an extremely useful instrument, but not the final word on the nature of reality itself.

Although there were important differences in viewpoint and emphasis among the main speakers, there was firm agreement among them on the need for an adequate conception of knowing and of our knowable reality. Each made a unique contribution to the transformation of our ways of knowing: David Bohm—in his notion of passionate insight that penetrates beyond the fixities and particulars of the given to an underlying wholeness that is the source of all genuine new knowledge; Sir John Eccles—in his insistence as a neurophysiologist that mind and brain are not only not identical, but that mind is prior and primary; Owen Barfield—in his demonstration of the matrix of meaning from which human language springs and to which it gives testimony; Huston Smith—in his elucidation of the "forgotten truths" of other cultures; Kathleen Raine—in her eloquent argument from tradition that the banishment of Imagination creates a dead universe, but that the reinstatement of mind encompassing nature restores it to the living; Peter Abbs—in his demonstration of the cognitive value of the imagination and the emotions and in his affirmation of an authentic self-identity behind the social appearances; Joseph Weizenbaum—in his urgent warning of the apocalyptic consequences of permitting our technology to define the human rather than to serve the human; Robert Bellah—in his search for living cultural traditions that contain resources for communal vision and commitment; and Hubert Dreyfus—in his plea for a knowing that proceeds from deep participation in experience. Each supplied an added dimension and emphasis to the insights of the others.

There was also unanimous agreement among speakers and participants that modern science, technology, and culture are not as such to be rejected but that the task is to realize fully their potential for human and humane purposes. Three broad possible opportunities were explored in the course of the symposium. One approach would be to accept our present situation as basically sound, but in need of some streamlining and readjustment. From this point of view our culture is somewhat out of kilter, needs an infusion of good values, requires more committed people manning the levers, but at bottom requires no radical

revisions. Almost every participant agreed that our problems are more serious than such a view would imply. A second approach would be simply to abandon our modern culture as utterly decadent and beyond redemption, and try to return to the traditional wisdom of a pre-modern, pre-scientific age. This did not present itself as a viable possibility to the participants; even those most appreciative of the traditional wisdom stressed that merely to return from whence we have come is neither possible nor desirable. The third approach, for which there was broad support, begins with the awareness that there have been real gains in the modern world—specifically, in the emergence of the individual and self-conscious identity. With individuation has come the possibility, if not always the reality, of genuine freedom. And, as an expression and instrument of this freedom, technological reason has emerged in all its power.

Each of these is a real achievement in the human being's evolutionary development and each carries potential for further achievement. Yet, each, if cut off from its grounding in a larger meaning and purpose, becomes, as only a moment's reflection will demonstrate, aberrant and destructive. The task then becomes one of finding and struggling for ways that will maintain the achievements of the modern world, while, at the same time, recovering the sources of meaning in the primordial traditions that prevent their becoming aberrant and destructive. It is at this point that the deep Imagination — Insight—can become the bridge between our modern individual freedom and reason, on the one hand, and the deep resources of meaning and reason contained in the cultural and spiritual traditions of mankind, on the other.

Education

Meeting in small working groups, the participants sought to explore the concrete implications for education of the new connections being made between knowledge and values. Time did not permit the spelling out of specific educational implications in great detail. Most important, however, the call for a change of premises, of basic assumptions, was so fundamental, so thoroughgoing, that it precluded any quick-and-easy move from theoretical reflection to detailed practical application. Any demand for a ready kit-bag of teaching techniques would have missed the significance of the symposium. And, yet, more was being called for than a mere, general change of attitude, however "value-laden" such change might be. A fundamental change of premises would have truly specific and detailed implications for curriculum, pedagogy, and educational practice. But what would be required in such a restructuring could only reveal itself fully in the process of being lived into and worked out.

Nevertheless, in discussions in the small groups, at the dinner tables, and during free time, some intimations of the specific educational import of the symposium began to emerge:

1. The crucial role of Insight in knowing suggested the possibility of a genuine integrating principle for what is widely acknowledged to be a fragmented modern curriculum. The deep Insight present in scientific discovery is the same activity at work in art, poetry, and in the perception of ethical vision. A fundamental unity joins scientific Insight, artistic Insight, and moral Insight. Here lies the possibility of a unified, cross-fertilizing curriculum that promises to go well beyond the vagaries of so-called "interdisciplinary courses" without losing the conceptual power of the individual disciplines.

2. Once the primary importance of Insight in all knowing is recognized, the way is opened for a reinstatement in the curriculum, and in their full right, of those subjects—philosophy, literature, art, religion—that deal with meaning and value as providing genuine knowledge about the

world. A conception of rationality and of knowing that takes into account the qualitative dimension of reality will not consign to second place (and consequently see them as the first to be chopped off in years of financial adversity) those fields whose primary concern and domain is quality.

Indeed, recognizing the role of Insight in knowing will lead to a corresponding recognition of the role of the arts as revealing, par excellence, what is fundamental to all knowing—scientific, philosophic, religious, and practical—as well as in achieving the basic goal of all knowing: to discover intrinsic meaning.

It will also mean paying heed to those philosophies of science that consider wholeness, life, quality, and mind, as much a part of nature as quantity.

3. At the level of pedagogical and classroom practice an awareness of the important role of Imagination, of Insight, raises a multitude of questions—both negative and positive—requiring sustained attention:

Negative—How destructive to their intellect and character is the unrelieved pressure on pupils to acquire narrowly conceived, analytic, mathematical (now add computer), and reading skills at an ever earlier age? What serious and permanent harm do we cause inadvertently (but with the best of intentions) by introducing into the earliest school years electronic teaching technology without providing for the nourishment of words, colors, dance, and the engaged presence of living persons? What possibilities for growth and capacities for caring and commitment do we shrivel by enveloping students with a vision of the universe as dead and finished, a place where life, meaning, and quality have but an ephemeral and quirky existence?

Positive—How can we best foster Insight and the imaging capacities? What should be the place in early education of storytelling, fantasy, daydreaming, fairy tales, myth, painting, dance, and movement? How essential is early involvement in these, as some claim it is, to the development in later life of sound analytic abilities and healthy character? How important to the development of Insight is the existence for children of an aesthetic, warm, and calm architectural and natural learning environment? How do we begin to put together a holistic and rhythmic curriculum in which, over the school year, the various parts interact in interrelated and ever greater wholes?

The questions can be multiplied.

4. A fundamental change of premises in our understanding of knowing and in our sense of the world will require an unrelenting questioning of the unexamined presuppositions and assumptions about reality that pervade our classrooms, textbooks, and media. We will need to begin to make a clear distinction between science, a marvelous human instrument, and scientism, a reductionistic, mechanistic, spurious, and quasi-religious world view. We will need to question that temporal provincialism which holds that only the modern age counts and has the right opinions. We will need to attempt in the best comparative study, to engage in open and meaningful dialogue with the beliefs and practices of other cultures. We can begin to appreciate the terror of many traditional cultures before the threat of "modern development," even as they are beguiled by it, and we will become sensitive to that traditional wisdom, essential to all humanity, which is in danger of being irrevocably lost.

5. An awareness of knowing as participatory and experiential reveals the importance of being and the quality of being in the teacher. The teacher must embody in his own being what it means to create, to question, to think, to reflect. Passion and emotions—focused, disciplined, attentive—are seen not to be a hindrance to rationality, but part and parcel of the activity of Insight. The education of the emotions and the emotions as educational come to-

gether in a curriculum which recognizes the quality of being as paramount. Such an education will not avoid the great issues of being human—death, tragedy, peace, conflict, love, and hate.

Peter Abbs wrote in reflecting on the symposium: "As we are ultimately responsible for our own being, so we are responsible to that knowledge which derives from our being. The implications of this Insight for the curriculum are indeed momentous. They invite us to join together all that we have split asunder; to join together, for example, values and technologies, conscience and science, poetry and existence. If within knowledge there is an ethical burden, then we can also say that our schools have been responsible for conveying a terrible misconception about pure objectivity, a misconception that may well account for many of the moral and ecological crises which now press so relentlessly upon us."

The process of education also assumes crucial importance, not as a matter of method and manipulation, but as an expression of authentic being. What is done, known, taught cannot be separated from the how and why of doing, knowing, teaching.

6. A radical change of premises and a total transformation in our ways of knowing may give to education an unsuspected and profound social dimension. In the first place it will foster an appreciation of a diversity of excellences, a diversity of gifts —logical, mathematical, technological, musical, linguistic, artistic, personal excellences—each deserving reverence and capable of revealing dimensions of reality. Perhaps what will then be required will be an institutional support for a diversity of excellences, rather than the too-common sentimental demands for abandonment of all excellence in the face of a single-track reward system geared only to academic excellence, narrowly defined. But recognizing such diversity may link education most directly with a concern for a just, global society, for it demands a world in which diversity in wholeness is cherished. A holistic education demands a just and caring society.

Second, a recovery of the objective aspect of qualities, as Barfield put it, relates education directly to the quality of the environment, the economy, the social structure. To lecture authentically on aesthetics in barren classrooms and ugly neighborhoods is jarring. And to continue to treat the earth as a machine or a dead slag heap while increasingly cognizing it as a living being would be equally jarring.

Third, a transformation of knowing could induce a renewed sense of civic pedagogy and the formation of an enlightened and committed public. Recognizing the connections between knowledge and values demands sustained public dialogue about the kind of society and culture desired. Events such as the symposium become public educational occasions in which the kinds of public issues that make "a vital difference," as Hubert Dreyfus put it, are explored. The educational responsibilities of the media, the family, churches, political groups, business, and a variety of other institutions and agencies become manifest.

As the transformation of knowing that is upon us deepens and grows, its full and detailed educational implications will become even clearer. The potential of this transformation, and what the symposium was about, was well expressed by Peter Abbs in his reflections, cited earlier:

> It would seem that in the Western world we have reached a historic moment of transition from an exhausted paradigm to a new broader paradigm now in the making, with all the confusion and uncertainty and turmoil that attends such making. The new paradigm is, in part, a creative response to all the ethical, existential, and ecological dilemmas which have accumulated largely because of the defensive narrowness of the traditional

epistemology. We have arrived at that volatile moment when the significant intellectual minority (both in the West and in the Soviet Union—in Sakharov and Solzhenytsin) cannot only see through the limitations of the post-Renaissance world-picture, but can also begin to formulate and defend what has been for so long excluded. What we see, in fact, is not a denial of the previous intellectual commitments (for, yes, we need both inductive and deductive methods) but rather a remarkable expansion of our understanding of the kinds of knowledge open to human beings; an expansion which gives due appreciation to deeper forms of knowing—ethical knowing, aesthetic knowing, personal knowing, imaginal knowing. This sudden reclaiming of lost forms of knowing is on such a momentous scale that it does not merely modify the traditional paradigm, it transforms it. We are taken into new philosophical ground—and the ground is so rich and so prolific it will take decades to harvest the fruit or, to put it conceptually, to explicate for education and society, and not least, our own personal lives, the innumerable implications.

The symposium was a beginning effort to chart the possibilities of a transformation in our ways of knowing and "the innumerable implications" for our earth, our culture, our education.

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Major Addresses and Presenters

"INSIGHT, SCIENCE, AND HUMAN VALUES"

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"THE SELF-CONSCIOUS MIND AND THE MEANING AND MYSTERY OF PERSONAL EXISTENCE"

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Addresses and Presenters (continued)

"LANGUAGE, THE EVOLUTION OF CONSCIOUSNESS, AND THE RECOVERY OF HUMAN MEANING"

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"BEYOND THE MODERN WESTERN MIND SET"

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"TOWARD A LIVING UNIVERSE"

Kathleen Raine
Poet

"HUMAN VALUES, INTUITION, AND THE EDUCATION OF THE EMOTIONS"

Peter Abbs
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"COMPUTER SCIENCE AND THE NEED FOR A HUMAN-CENTERED SCIENCE"

Joseph Weizenbaum
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"CULTURAL VISION AND THE HUMAN FUTURE"

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"IS A SCIENCE OF MAN POSSIBLE?"

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